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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/664,682	09/19/2000	Suguru Mitsui	450100-02722	8097

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EXAMINER

HAN, QI

ART UNIT PAPER NUMBER

2654

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/664,682

Applicant(s)

MITSUI, SUGURU

Examiner

Qi Han

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,6,9,10,13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,9,10,13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Amendments

2. This communication is responsive to the applicant's amendment dated 09/27/2004. Applicant amended claims 1, 5, 9 and 13, cancelled claims 3-4, 7-8, 11-12 and 15.

Response to Arguments

3. Applicant's arguments with respect to independent claim 1 (also applied to claims 5, 9 and 13) have been considered but are moot in view of the new ground(s) of rejection, since the amended claims 1, 5, 9 and 13 introduce new issue(s).

In response to applicant's arguments regarding rejection claims 2, 6, 10 and 14, that challenge the examiner's official notice (amendment: page 7, paragraph 4 to page 8, paragraph 3), the examiner provides two references for supporting the official notice, as evidenced by Burges et al. (5, 647,027) who discloses using "logical operation" on pixels (element) for combining images (column 7, lines 45-51), and by Madisetti et al. (The Digital Signal Processing Handbook, 1998, ISBN: 0-8493-8572-5) who teaches binary (logical) operations on a pixel(element)-by-pixel basis for combining images (pages 51-35 and 51-36). Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify White in view of Ohsawa and Gibson by specifically providing logical operation(s), such

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as OR and AND, on a picture element for composing pictures, as taught by Burges et al. or Madisetti et al., for the purpose of offering more data manipulating feature(s) for a visual display.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 5, 9 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 5, 9 and 13, the limitation “a composing method of said frequency analyzed picture and said selected picture on the basis of ...” renders the claim indefinite because it is unclear what is exact meaning of the limitation. As best understood in view of the application, the limitation will be interpreted as “a method of composing said frequency analyzed picture and said selected picture ...” hereinafter.

Claim Rejections - 35 USC § 103

5. Claims 1, 5, 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over White (US 5,734,794) in view of Ohsawa (US 4,973,897) and Gibson (US 6,490,359 B1).

As per **claims 1 and 5**, White discloses a computer based system utilizing cues extracted from audio speech to select from among a database of stored image cells to produce synthesized animated characters (abstract), comprising:

“sound signal obtaining means for obtaining a sound signal”, (Fig. 2, ‘microphone’, ‘A/D converter’);

“sound signal analyzing means for frequency-analyzing said obtained sound signal”, (Fig. 2 and column 6, lines 5-21, ‘audio tools’, ‘extraction tools 240’; column 8, lines 24-55, ‘the speech (sound signal) is analyzed with respect to frequency and amplitude’);

“storing means for storing a plurality of pictures”, (Fig. 4 and column 7, lines 10-16, ‘frame memory 216 which is the initial image storage location’, ‘a cell (image) database 212’) (for claim 5);

“selected picture switching means that switches and selects one among a plurality of registered pictures as a selected picture” (Fig. 2 and column 6, lines 5-21, ‘image tools 220’, ‘cell selector 250’ used to receive phoneme and emotion information from extraction tools 240, and ‘to select appropriate image cell (herein corresponding to picture) from the image tools memory 220’); and

“composed picture display means that displays a composed picture produced by composing” the selected pictures (column 5, lines 32-34, ‘the animated faces of the virtual actors can be composited (composed) onto the faces of the body actors’).

Even though White suggests that the speech is frequency-analyzed by using spectral components, including frequency and amplitude (column 8, lines 24-55), White fails to disclose using the analyzed result to produce a corresponding picture as the claimed “producing a

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specified frequency-analyzed picture on the basis of a result of said frequency-analysis”.

However, this feature is well known in the art as evidenced by Ohsawa who discloses system analyzer (title), comprising ‘dividing an audio or other input signal into a plurality of frequency bands’, ‘displaying (producing) the detected signal levels of the divided frequency bands’ (column 3, lines 5-16), and graphic presentation (interpreted as frequency analyzed picture) of the signal with the frequency bands on an LCD display device (Figs, 1-2 and 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify White by specifically providing a mechanism to produce graphic presentation for the divided frequency bands, as taught by Ohsawa, for the purpose of observing frequency characteristics of an audio signal (Ohsawa: abstract)

Further, even though White discloses capability of composing selected pictures (column 5, lines 32-34), as stated above, White in view of Ohsawa does not expressly disclose the selected picture “on the basis of a level of a first frequency band of the analyzed sound signal from said sound signal analyzing means”, the composed picture produced by composing “said frequency-analyzed picture and said selected picture”, and a “means that changes a method of composing said frequency-analyzed picture and said selected picture on the basis of a level of a second frequency band of the analyzed sound signal from said signal analyzing means”.

However, these features are well known in the art as evidenced by Gibson who discloses a method and apparatus for using visual images to mix sound (title), comprising ‘the audio signal visual image is segmented into portions that correspond to pre-selected frequency ranges (bands)’ and ‘the frequency components (bands) of the selected audio signal are dynamically correlated with ...corresponding segmented portions of the audio signal visual image’ (column 3,

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lines 26-30); 'the other visual characteristics of sphere ...are made interdependent with selected audio characteristic of source signal: ...correlated to frequency;... correlated to volume or amplitude...' and 'different colors may be assigned to ...different frequency ranges (bands)' (column 6, line 60 to column 7, line 51), which suggests the system can select a picture (a picture portion) based on the interdependent audio characteristics, such as frequency ranges and amplitude; 'transforming each audio signal into an audio signal visual image (correspond to a selected picture)', 'generates audio effect images (herein may include a frequency-analyzed picture)', 'adjusting the displayed audio effect images (corresponding to a composed picture)', 'changes audio effects added to the audio signal in response to corresponding user adjustments to the displayed audio effect image (changes a method of the composing) (Figs. 6-16 and column 2, line 31-40); 'visual mixing activities' by using 'mix window', 'effect window', 'EQ widow' in variety of combining (composing) methods (column 5, line 60 to column 10, line 67); which suggest the combined system has capability of implementing the functionality as claimed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify White in view of Ohsawa by specifically providing a selected picture based on an amplitude of a frequency range, and a mixing (composing) mechanism for composing and changing a mixed picture from different pictures or picture portions, as taught by Gibson, for the purpose of presenting the intuitive special characteristics of sound with visuals (Gibson: column 2, lines 14-16).

As per **claim 9**, it recites a picture producing method. The rejection is based on the same reason described for claim 1, because claim 9 recites same or similar limitation(s) as claim 1.

As per **claim 13**, it recites a program-storing medium. The rejection is based on the same reason described for claim 1, because claim 13 recites same or similar limitation(s) as claim 1.

6. Claims 2, 6, 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over White in view of Ohsawa in view of Gibson, and further in view of well known prior art (MPEP 2144.03).

As per **claim 2** (depending on claim 1), White in view of Ohsawa and Gibson fails to specifically disclose that “said composed picture display means produces said composed picture by **logically operating** a picture element of said frequency-analyzed picture and a corresponding picture element of said selected picture”. However, an official notice is taken that it is well known in the art to provide logical operation(s) on a picture (or image) element for composing pictures. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify White in view of Ohsawa in view of Gibson by specifically providing logical operation(s), such as OR and AND, on a picture element for composing pictures, for the purpose of offering more data manipulating feature(s) for a visual display.

As per **claim 6** (depending on claim 5), the rejection is based on the same reason described for claim 2, because claim 6 recites same or similar limitation(s) as claim 2.

As per **claim 10** (depending on claim 9), the rejection is based on the same reason described for claim 2, because claim 10 recites same or similar limitation(s) as claim 2.

As per **claim 14** (depending on claim 13), the rejection is based on the same reason described for claim 2, because claim 14 recites same or similar limitation(s) as claim 2.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

8. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Please address mail to be delivered by the United States Postal Service (USPS) as follows:

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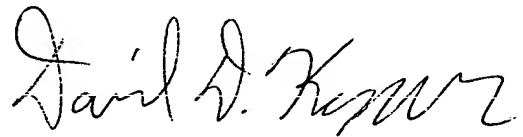
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qi Han whose telephone numbers is (703) 305-5631. The examiner can normally be reached on Monday through Thursday from 9:00 a.m. to 7:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (703) 305-9645.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at: ebc@uspto.gov. For general information about the PAIR system, see <http://pair-direct.uspto.gov>.

QH/qh
March 10, 2005



DAVID D. KNEPPER
PRIMARY EXAMINER